

### **REMARKS/ARGUMENTS**

The claims are 2-4, 9-16, 18, 20 and 23-25. Claims 1, 19 and 22 have been canceled in favor of new claims 23-25 to better define the invention. In addition, claim 8 has been canceled, and claims 2, 9-13, 18 and 20, which previously depended on claim 1, have been amended to depend on new claim 23. Reconsideration is expressly requested.

The declaration was rejected as defective in the use of the phrase "which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a)" instead of --which is material to patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56--. In response, Applicant submits herewith a new declaration, in which the duty to disclose information "which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56" is expressly stated. It is respectfully submitted that the foregoing declaration overcomes the Examiner's objection to the declaration, and Applicant's respectfully request the objection to the declaration be withdrawn.

Claims 1-4, 8-16, 18-20 and 22 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite because in the Examiner's view it was unclear in claims 1, 19 and 22 if the slide valve was being claimed as having a front element protruding in the first hydraulic chamber or if the slide valve pressure plate was being claimed as having a front element protruding in the first hydraulic chamber. In addition, it was unclear to the Examiner if the front element recited in line 2 of claim 8 referred to the front element already recited in claim 1 or if another front element was being claimed.

In response, Applicant has rewritten claims 1, 19 and 22 as new claims 23-25, and has canceled claim 8. In new claims 1, 19 and 22, the slide valve is specified as having the front element protruding in the first hydraulic chamber. In addition, the regulation of flow resistance is specified as "continuous." It is respectfully submitted that the foregoing amendment overcomes the Examiner's rejection under 35 U.S.C. 112, second paragraph, and Applicant respectfully requests that the rejection on that basis be withdrawn as well.

Claims 1, 8-16, 18, 19 and 22 were rejected under 35 U.S.C. 102(b) as being anticipated by *Haar et al.* U.S. Patent No. 6,440,099. Claims 1-4, 8-12, 18-20 and 22 were rejected under 35 U.S.C. 102(b) as being anticipated by *Love* U.S. Patent No. 2,650,591. The Examiner also took the position that the front element of *Haar et al.* was considered capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. In the Examiner's view, there was no indication of continuous regulation recited in the claims. In addition, the Examiner considered unpersuasive the argument that *Haar et al.* was not capable of closing or progressively opening the opening of the control hole. In the Examiner's view, the feature was simply an intended use that does not distinguish the claimed invention structurally from the prior art.

In response, Applicant has canceled claims 1, 19 and 22 in favor of new claims 23-25 to better define the invention and respectfully traverses the Examiner's rejection for the following reasons.

As set forth in new claims 23-25, Applicant's invention provides an anesthetic syringe including a slide valve comprising

a front element and a feed piston longitudinally slidable within a carpule volume.

As recited in Claims 23 and 24, the feed piston has a feed piston pressure plate and the anesthetic syringe also includes a first hydraulic chamber connected to the feed piston pressure plate.

As recited in claim 23, a second hydraulic chamber behind the first hydraulic chamber is connected to the first hydraulic chamber so as to allow for continuous regulation of flow resistance. The syringe also has a control hole having an opening between the first hydraulic chamber and the second hydraulic chamber. The slide valve has a slide valve pressure point connected to the first hydraulic chamber. The front element protrudes into the first hydraulic chamber in order to allow for haptic feedback of pressure in the first hydraulic chamber, and the slide valve is capable of closing or progressively opening the opening of the control hole between the first hydraulic chamber and the second hydraulic chamber.

As recited in claim 24, a second hydraulic chamber behind the feed piston is connected to the first hydraulic chamber so as to allow for continuous regulation of flow resistance. The syringe also includes a control hole having an opening between the first hydraulic chamber and the second hydraulic chamber. The slide valve has a slide valve pressure plate connected to the first hydraulic chamber, the front element protrudes into the first hydraulic chamber in order to allow for haptic feedback of the pressure in the first hydraulic chamber, and the slide valve is capable of closing or progressively opening the opening of the control hole between the first hydraulic chamber and the second hydraulic chamber.

As recited in claim 25, a hydraulic system is connected to the feed piston of the hydraulic system including at least a first hydraulic chamber. An indexer piston is connected to the first hydraulic chamber and makes pressure in the first hydraulic chamber optically recognizable, wherein a haptic feedback is provided alternatively or additionally. The syringe also includes a second hydraulic chamber behind the first hydraulic chamber which is connected to the first hydraulic chamber so as to allow for continuous regulation of flow resistance, and a

control hole having an opening between the first hydraulic chamber and the second hydraulic chamber. The slide valve has a slide valve pressure plate connected to the first hydraulic chamber, the front element protrudes into the first hydraulic chamber in order to allow for haptic feedback of the pressure in the first hydraulic chamber, and the slide valve is capable of closing or progressively opening the opening of the control hole between the first hydraulic chamber and the second hydraulic chamber.

In this way, Applicant's invention provides an anesthetic syringe that is independent of external power sources and is particularly suited for fine regulation of the movement resulting at the feed piston when the second hydraulic chamber is subjected to high overpressure.

None of the cited references discloses or suggests an anesthetic syringe having the structure specified in new claims 23-25 or teaches the benefit of that structure, which allows for continuous regulation of flow resistance and haptic feedback of pressure in a first hydraulic chamber. With respect to *Haar et al.* it is respectfully submitted that FIGS. 2 and 3 make manifest

that *Haar et al.* shows neither means that enable a continuous regulation, nor means that enable a haptic feedback. Instead, the apparatus of *Haar et al.* can distinguish only in a binary way between two different positions, namely (i) the position shown in FIG. 2 with an intact plastic holding pin for the gas release valve 33, and (ii) the position shown in FIG. 3 with the broken plastic holding, and with the button 32 wedged under the housing 45.

In practice, the practitioner moves the housing 45 of *Haar et al.* against the pressure of the spring 47 towards the patient, so that the opening in the housing 45 gets aligned under the button 32; however, the button 32 is called a "trigger 32" by *Haar et al.* This choice of wording shows that *Haar et al.* never intended to make the button enable the practitioner to feel something on the way from the two positions shown in FIG. 2 and 3. Rather, *Haar et al.* itself regards the trigger as a means only to break the gas release valve.

With the arrangement of *Haar et al.* the practitioner needs to exert so much force on the trigger in order to break the gas release valve, that in the very moment when it breaks, the

trigger directly hits against the bottom wall of the housing 23. The construction does not enable a feeling of the haptic feedback of the pressure. The construction also does not allow for continuous regulation. *Haar et al.* itself describes in column 6, line 37 only the situation where the trigger is broken and the valve is opened. There is no disclosure or suggestion of a continuous position in anything disclosed by *Haar et al.* nor it is respectfully submitted could the arrangement shown in *Haar et al.* be made continuous.

The same is true with respect to *Love*. FIG. 2 of *Love* shows that a rod 37 can be journaled in and out of the device, so that the valve 27 can be opened and closed in a continuous way; however, the construction of *Love* never allows for haptic feedback. The rod 37 is fixed to a screw 39 and a boss 40. In column 3, lines 59 to 69, *Love* describes that the handle 41 can be used to turn the screw inside the boss; however, a screw always takes the axial forces which are exerted from the fluid to the rod. As a result, the force cannot be felt at the outside of the device, especially not at the handle 41.

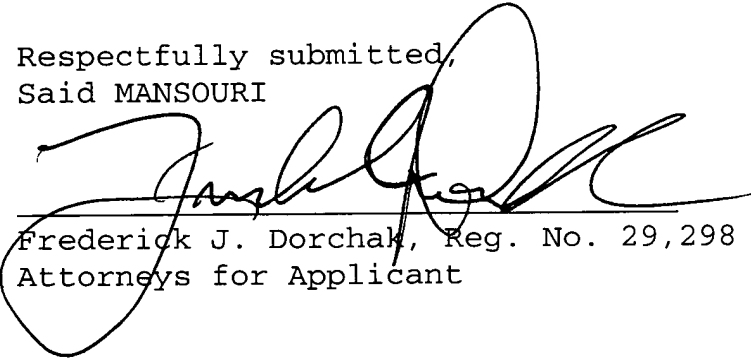


Accordingly, it is respectfully submitted that neither *Haar et al.* nor *Love* discloses a device allowing for haptic feedback and *Haar et al.* certainly does not show a continuous regulation means as recited in Applicant's claims. Accordingly, it is respectfully submitted that new claims 23-25. together with claims 2-4, 9-16, 18 and 20, which depend directly or indirectly on new claim 23, contain patentable and unobvious subject matter.

In summary, claims 2, 9-13, 18 and 20 have been amended, claims 1, 8, 19 and 22 have been canceled, and new claims 23-25 have been added. A new declaration has also been submitted. In view of the foregoing, withdrawal of the final rejection and allowance of this application are respectfully requested.

Respectfully submitted,  
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Enclosure: Declaration

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on March 4, 2008.



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